

Remarks

Claims 1-17 are pending in the application. Figures 2 and 3 have been amended. Claims 9 and 11 have been amended. New claims 18-20 have added to the application. Reconsideration and re-examination of the application is respectfully requested for the reasons set forth herein.

1. The Examiner has objected to the drawings under 37 CFR 1.83(a) because the drawings do not show every feature of the invention specified in the claims. Specifically, the drawings do not show the "beveled guide portions" in claims 6 and 15.

A proposed drawing correction of Figure 2 has been submitted showing the beveled guide portions described on page 5, lines 24-28, and in claims 6 and 15. A replacement drawing of Figure 3 showing the teeth 108a, 108b, the retaining web 106, and the receiving opening 110 as described in the specification has also been submitted. Approval of the proposed drawing correction and the replacement drawing and removal of the objection to the drawings under 37 CFR 1.83(a) is respectfully requested.

2. The Examiner has rejected claims 1-2 and 5-8 under 35 U.S.C. 103(a) as being unpatentable over Haesly et al. (US Patent No. 4,327,964) in view of Yamada et al. (US Patent No. 4,986,625).

With regard to claim 1, the Examiner stated that Haesly et al. discloses a housing 11 with receptacles for receiving an optical fiber. The housing 11 includes retention members 22, 23 made of the same material as the housing 11. Haesly et al. does not disclose the retention members 22, 23 as being initially supported in a pre-assembly position. The Examiner further stated that Yamada et al. discloses a housing for receiving an optical fiber with a retention

member 20 that is initially supported in a pre-assembly position, as shown in Figure 3a. The Examiner, therefore, concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Haesly et al. to provide the retention member as initially supported in a pre-assembly position as taught by Yamada et al. to facilitate and reduce the cost of assembly.

Claim 1 states that the housing comprises a retention member being made of the same material as the housing and initially supported in a pre-assembly position over the receptacle of the housing. As shown in Figures 1 and 2, Haesly et al. teaches a fiber optical connector having a body member 11 with a cavity 12 into which a ferrule 13 extends. A retainer 14 is inserted into a slot 15 which extends transversely to an axis of the ferrule 13. An opening 16 in the retainer 14 is expandable to accommodate an enlarged diameter section 17 of the ferrule 13. When fully inserted, the large diameter section 17 of the ferrule 13 is fixed in place just beyond the opening 16 in the retainer 14. The retainer 14 is interchangeable such that other retainers 22, 23, 28, 29 having external arms 26, 27, 30, 31, respectively, for attachment to a circuit board or a base member may be substituted for the retainer 14. In operation, the retainer 14 is inserted into the slot 15, and the ferrule 13 is inserted through the opening 16 in the retainer 14 until the large diameter section 17 of the ferrule 13 is fixed in place just beyond the opening 16. The opening 16 of the retainer 14 expands to allow the ferrule 13 to snap-out of the assembly when a substantial pulling force is applied to the ferrule 13 to avoid damage to the fiber or to the connector. As shown in Figures 2-4, Yamada et al. teaches an optical fiber connector having a connector body 10 with a bore 13 extending therethrough. To mount optical fiber cable 5 in the connector body 10, a separate metal retaining plate 20 is removed from a carrier 25. Legs 21 of the retaining plate 20 are inserted into plate insertion slots 15 such that lower ends of both of the

legs 21 do not reach into the bore 13. The optical fiber cable 5 is inserted into the bore 13, and the retaining plate 20 is then pushed down such that U-shaped slots 22 in the legs 21 are pressed into a jacket 5a of the optical fiber cable 5 to secure the optical fiber cable 5 in the connector body 10. There is no suggestion or motivation either in the references or by one with ordinary skill in the art to combine or modify the references as suggested by the Examiner, because Haesly et al. teaches away from the desired modification. In Haesly et al., the retainer 14 is fully received in the body member 11 before insertion of the ferrule 13. Because the retainer 14 is fully received within the body member 11 before insertion of the ferrule 13 and not after insertion of the ferrule 13, there is no basis for modifying Haesly et al. such that the retainer 14 is supported in a pre-assembly position over the cavity 12 before insertion of the ferrule 13 as taught by Yamada et al. As such, the Examiner has failed to set forth a prima facie case of obviousness and removal of the rejection of claim 1 under 35 U.S.C. 103(a) is respectfully requested.

Claims 2 and 5-8 depend from independent claim 1. As previously discussed, Haesly et al. and Yamada et al. are not properly combinable and, as such, the combination thereof does not teach or suggest all the elements of claim 1. Because the combination of Haesly et al. in view of Yamada et al. does not teach or suggest all the elements of claim 1, the combination of Haesly et al. in view of Yamada et al. does not teach or suggest all the claim limitations of claims 2 and 5-8. Removal of the rejection of claims 2 and 5-8 under 35 U.S.C. 103(a) is respectfully requested.

Additionally, with regard to claim 2, there is no suggestion or motivation either in the references or by one with ordinary skill in the art to modify the references of Haesley et al. and/or Yamada et al. to form the retainer 14 and/or the metal retaining plate 20 integral with their respective housings. As described in claim 1 of Haesley et al., the retainer 14 is interchangeable

such that other retainers 22, 23, 28, 29 having external arms 26, 27, 30, 31, respectively, for attachment to a circuit board or a base member may be substituted for the retainer 14. Because the retainers 14, 22, 23, 28, 29 are taught as being interchangeable within the body member 11, there is no motivation to modify the reference to make the retainers 14, 22, 23, 28, 29 integral with the body member 11 as suggested by the Examiner. Further, as described in column 2, lines 54-56 of Yamada et al., the retaining member 20 is made of a thin sheet metal such that the edges thereof may be pressed into the jacket 5a of the optical fiber cable 5, and as shown in the figures, the connector body 10 is molded from plastic. Because the retainer member 20 is made of metal so that it can be pressed into the optical fiber cable 5, and the connector body 10 is made of plastic, there is no motivation to modify the reference to make the retainer member 20 integral with the connector body 10 as suggested by the Examiner. As such, the Examiner has failed to set forth a prima facie case of obviousness and removal of the rejection of claim 2 under 35 U.S.C. 103(a) is respectfully requested.

3. The Examiner has rejected claim 3 under 35 U.S.C. 103(a) as being unpatentable over Haesly et al. (US Patent No. 4,327,964) in view of Yamada et al. (US Patent No. 4,986,625) and further in view of Yagi et al. (US Patent No. 5,835,652).

With regard to claim 3, the Examiner stated that Haesly et al. and Yamada et al. disclose the claimed invention as previously described except for the retention member having teeth disposed on a surface thereof which engage the optical fiber. The Examiner further stated that Yagi et al. discloses a retainer member with teeth 11. The Examiner, therefore, concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify Haesly et al. in view of Yamada et al. to provide the retention member with teeth as taught by Yagi et al. to help grip the optical fiber.

Claim 3 depends from independent claim 1. As previously discussed, the combination of Haesly et al. in view of Yamada et al. does not teach or suggest all the elements of claim 1. Because the combination of Haesly et al. in view of Yamada et al. does not teach or suggest all the elements of claim 1 except for the retention member having teeth disposed thereon which engage an optical fiber, the combination of Haesly et al. in view of Yamada et al. and further in view of Yagi et al. does not teach or suggest all the elements of claim 3. Further, the references are not properly combinable because modifying the retainer 14 of Haesly et al. to include teeth would destroy the intended function of the invention of Haesly et al. As previously discussed, Haesly et al. teaches a fiber optic connector having a body member 11 into which a ferrule 13 is inserted and held in place by an expandable retainer 14 that allows the ferrule 13 to snap out of the assembly upon an application of a substantial pulling force. To modify the retainer 14 of Haesly et al. to have teeth that engage the ferrule 13 would prevent the retainer 14 from expanding and allowing the ferrule 13 to easily snap-out of the assembly without damaging the fiber or the connector. Because the combination of Haesly et al. in view of Yamada et al. and further in view of Yagi et al. does not teach or suggest all the elements of claim 3 and because the references are not properly combinable because the intended function of the references would be destroyed, removal of the rejection of claim 3 under 35 U.S.C. 103(a) is respectfully requested.

4. The Examiner has rejected claim 4 under 35 U.S.C. 103(a) as being over Haesly et al. (US Patent No. 4,327,964) in view of Yamada et al. (US Patent No. 4,986,625) and further in view of Wolfthal (US Patent No. 4,211,462).

With regard to claim 4, the Examiner stated that the combination of Haesly et al. and Yamada et al. disclose the claimed invention as previously discussed, except for the retention member having a receptacle for receiving a plunger of an assembly tool. The Examiner further stated that Wolfthal discloses a retention member 82 that has a receptacle 112, 120 for receiving a plunger of an assembly tool 138. The Examiner, therefore, concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Haesly et al. and Yamada et al. so that the retention member comprises a receptacle for receiving a plunger of an assembly tool as taught by Wolfthal to push the retention member into position.

Claim 4 depends from independent claim 1. As previously discussed, the combination of Haesly et al. in view of Yamada et al. does not teach or suggest all the elements of claim 1. Because the combination of Haesly et al. in view of Yamada et al. does not teach or suggest all the claim limitations of claim 1 except for retention member having a receptacle for receiving a plunger of an assembly tool, the combination of Haesly et al. in view of Yamada et al. and further in view of Wolfthal does not teach or suggest all the elements of claim 4. Because the Examiner has failed to set forth a prima facie case of obviousness, removal of the rejection of claim 4 under 35 U.S.C. 103(a) is respectfully requested.

5. The Examiner has rejected claims 9 and 14-17 under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (US Patent No. 4,986,625).

With regard to claim 9, the Examiner stated that Yamada et al. discloses in Figures 1-6 an optical connector comprising a housing 10 having at least one receptacle which is open to a first side 13 and open to a second side thereof. A fiber 5 is received through the first side 13 into the receptacle and a retention member 20 is received from the second side into the receptacle. Retention member 20 is engaged with the fiber to retain the fiber within the receptacle. The Examiner, therefore, concluded that Yamada et al. teaches all the elements of claim 9.

Claim 9 has been amended to state that the optical connector comprises at least one frangible web supporting the retention member in the housing so that the retention member is displaceable in a direction normal to the fiber. As shown in Figures 2-4, Yamada et al. teaches an optical fiber connector having a connector body 10 with a bore 13 extending therethrough. To mount optical fiber cable 5 in the connector body 10, a separate metal retaining plate 20 is removed from a carrier 25. Legs 21 of the retaining plate 20 are inserted into plate insertion slots 15 such that lower ends of both of the legs 21 do not reach into the bore 13. The optical fiber cable 5 is inserted into the bore 13, and the retaining plate 20 is then pushed down such that U-shaped slots 22 in the legs 21 are pressed into a jacket 5a of the optical fiber cable 5 to secure the optical fiber cable 5 in the connector body 10. Because Yamada et al. does not teach at least one frangible web supporting the retention member in the housing so that the retention member is displaceable in a direction normal to the fiber, Yamada et al. does not teach all of the elements of amended claim 9. Removal of the rejection of claim 9 under 35 U.S.C 102(b) is respectfully requested.

Claims 14-17 depend from independent claim 9. As previously discussed, Yamada et al. does not teach all the elements of amended claim 9. Because Yamada et al. does not teach all the

elements of amended claim 9, Yamada et al. does not teach all the elements of claims 14-17. Removal of the rejection of claims 14-17 under 35 U.S.C. 102(b) is respectfully requested.

6. The Examiner has rejected claims 10-11 and 13 under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US Patent No. 4,986,625) in view of Wolfthal (US Patent No. 4,211,462).

With regard to claim 10, the Examiner stated that Yamada et al. discloses the claimed invention as previously discussed except for the retention member being integrally formed with the housing. The Examiner further stated that Wolfthal discloses in Figure 7 a connector with an integral retainer 82. The Examiner, therefore, concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yamada et al. to integrally form the retention member with the housing as taught by Wolfthal to simplify manufacture of the assembly.

With regard to claim 11, the Examiner stated that Yamada et al. discloses the claimed invention as previously discussed except for the retention member being joined to the housing by at least one frangible web. The Examiner further stated that Wolfthal discloses a frangible web 90. The Examiner, therefore, concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yamada et al. to provide a frangible web as taught by Wolfthal to connect the retention member to the housing to require less parts.

With regard to claim 14, the Examiner stated that Yamada et al. discloses the claimed invention as previously discussed except for the retention member having a receptacle for receiving a plunger of an assembly tool. The Examiner further stated that Wolfthal discloses in Figure 7 a retention member 82 that has a receptacle 112, 120 for receiving a plunger of an

assembly tool 138. The Examiner, therefore, concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yamada et al. such that the retention member comprises a receptacle for receiving a plunger of an assembly tool as taught by Wolfthal to push the retainer member into position.

Claim 11 has been amended to correct antecedent basis in view of the amendment to claim 9. Claims 10-11 and 13 depend from independent claim 9. As previously discussed, Yamada et al. does not teach all the elements of amended claim 9. Because Yamada et al. does not teach all the elements of amended claim 9, except for the limitations contained in the dependent claims, the combination of Yamada et al. in view of Wolfthal does not teach or suggest all the elements of claims 10-11 and 13. Removal of the rejection of claims 10-11 and 13 under 35 U.S.C. 103(a) is respectfully requested.

7. The Examiner has rejected claim 12 under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US Patent No. 4,986,625) in view of Yagi et al. (US Patent No. 5,835,652).

With regard to claim 12, the Examiner stated that Yamada et al. discloses the claimed invention as previously discussed except for the retention member having teeth disposed on a surface thereof for engaging the optical fiber. The Examiner further stated that Yagi et al. discloses a retainer member with teeth 11. The Examiner, therefore, concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the retainer of Yamada et al. with teeth as taught by Yagi et al. so that the retainer could grip the fiber.

Claim 12 depends from independent claim 9. As previously discussed, Yamada et al. does not teach all the elements of amended claim 9. Because Yamada et al. does not teach all the

elements of amended claim 9 except for the retention member having teeth disposed on a surface thereof which engage the optical fiber, the combination of Yamada et al. in view of Yagi et al. does not teach or suggest all the elements of claim 12. Removal of the rejection of claim 12 under 35 U.S.C. 103(a) is respectfully requested.

8. New claims 17-20 have been added to the application.

Claims 18-19 depend from independent claim 1. Because claim 1 is considered to be in condition for allowance for the reasons set forth herein, claims 18-19 are also considered to be in condition for allowance. Additionally, the prior art fails to teach or suggest the additional elements of dependant claims 18 and 19.

Claim 20 depends from independent claim 9. Because claim 9 is considered to be in condition for allowance for the reasons set forth herein, claim 20 is also considered to be in condition for allowance. Additionally, the prior art fails to teach or suggest the additional elements of dependant claim 20.

Examination of new claims 17-20 is respectfully requested.

In view of the amendments and arguments presented herein, the application is considered to be in condition for allowance. Reconsideration and passage to issue is respectfully requested.

Please charge any additional fees associated with this application to Deposit Order Account No. 501581.

Respectfully submitted,

Roland Kraus, Applicant

A handwritten signature in black ink, appearing to read "J M Slonaker", written over a horizontal line.

Jennifer Mae Slonaker

Registration No. 50568

Attorney for Applicant

Phone: 717.399.1535

Facsimile: 717.291.4660